

MODIS sensor Working Group (MsWG) Summary

September 29, 2004

Attendance: Bill Barnes, Vincent Chiang, Roger Drake, Shaída Johnston, Gerhard Meister, Chris Moeller, Vince Salomonson, Junqiang Sun, Gary Toller, Zhengming Wan, Jack Xiong

Scheduled Agenda

Item 1: L1B LUT delivery

- Terra V4.3.0.16 regular m1 update sent to DAAC on September 22.
GT) Rapid Response Team wants to be informed when we update the LUT.
- MCST filed three PCR (Product Change Request) for Terra and Aqua collection 5, including (1) SWIR thermal leak correction new LUT to allow sending detector to be specified. (2) Add another dimension to B21 b1 table for mirror side dependency. (3) Minor code change on integer handling for machine portable reason and to comply with the ESDID guideline.

Item 2: Terra Band 28 detector 8 (PO) b1 changed

On day 2004/271 (9/27) at about 12:54 GMT, PV band 28 detector 8 (in **Product Order**) b1 increased by 5% when the Terra S/C was over near the edge of the SAA in daytime orbit.

BB) Are the changes all in PV bands?

JX) Mostly yes.

RD) There were few PC B33 and B34 detectors got noisy after out-gassing.

CM) Has this detector happened like this before?

JX) This detector has been noisy above the spec since the recovery from Safe mode in 2003.

Many of the recent gain change and noisy detectors events happened in the SAA region. We will prepare a summary page for that.

Item 3: Instrument operations – Terra/Aqua MODIS nominal

Both Terra and Aqua Spacecrafts have planned couple of IAMs (Inclination Adjust Maneuvers).

- Terra FOT is planning 3 IAMs burn on Oct 26, 28, and Nov 3 (2004/300, 302, and 308).
- Aqua latest IAMs were on Sep 14, 21, and 28. Two additional will be on Oct 5 and 12 (2004/279 and 286).

Around the Table

Participant: Vince Salomonson – Inter-satellite comparison

VS) John Barker has been focusing on LandSat calibration. He wants to compare LandSat with MODIS, so he will start participating more in MsWG. Not only we will have SeaWiFS to compare with, but also the LandSat. (People like land surface temperature modeler working with Dr. Wan can share the information.)

Participant: Zhengming Wan – RSR and central wavelength issue

JX) Dr. Wan suggests use the band average central wavelength for temperature retrieval. The differences of that compared to the individual detector wavelength are small because the RSR have been adjusted for the smiling effect from the pre-launch measurements. We will send Dr. Wan a table of the difference in temperature to verify the finding. Also a table of radiance to temperature conversion can be constructed based on the central wavelength. (Dr. Wan thinks that's good.)

Participant: Chris Moeller – Band 26 nighttime data

- CM) The SWIR correction is more effective for Aqua than Terra. For Terra, I still see residue in the nighttime data. The numbers are smaller than the required spec. The question is that the negative dn is due to electronic cross talk or the DCR? Will the coefficients from NTDM be good for correcting the daytime data? I may ask more test data set.
- JX) The correction is applied to a small number. I would like to look at the raw data, see if the negative dn is consistent, and then get back to you. We can provide the testing for you too.
- JX) Junqiang is looking at the B2 sub-frame striping issue that you raised before. We will talk to you on this offline.

Participant: Roger Drake – Cooler margins

- RD) I talked to Bryan (IOT) and got some telemetry data for PFM and FM1 cooler power margins. Over all, two instruments are looking good for that.

Participant: Bill Barnes – ATBD

- BB) I am working on the revised L1B. I hope we can get it out in a week.
- JX) This ATBD reflexes what's inside the L1B. We will ask Dr. Wan, Chris, Stuart, and Eric to review before it goes out to public.

Next MsWG meeting schedule will be announced.